UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,813	12/12/2003	Eric Le Bars	4590-253	8845

33308   7590   08/18/2009
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EXAMINER
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ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
08/18/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/733,813	LE BARS ET AL.
Office Action Summary	Examiner	Art Unit	
	CHRISTOPHER FINDLEY	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 June 2009</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-18</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>6/05/2009</u>.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-18 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-8 and 16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Teichmer (US 6380991 B1) in view of Kelly et al. (US 6952521

B2).

Re **claim 1**, Teichmer discloses a method of splicing digital signals comprising at

least two types of data packets: I and P packets of complete data and B packets of

differential data, said method comprising the following steps: receiving a first digital

signal s1 (Teichmer: Fig. 2, stream 1); receiving a second digital signal s2 (Teichmer:

Fig. 2, stream 2); receiving a splicing command Cc(T.sub.0) (Teichmer: Fig. 2, "GOP

boundary" labeled on stream 1 indicates the start of a splicing operation); transmitting

the first signal s1 before the splicing indicated by the splicing command Cc(T.sub.0)

(Teichmer: Fig. 2, the portion of the Freeze Splice stream before the (previous GOP

extended) section).

Teichmer discloses that transmission of the second signal s2 starts with the I

packet of complete data closest following the instant To indicated by the splicing

command Cc(To) in such a way that the reproduction of the second signal s2 starts with

the reproduction of the I packet of complete data, but Teichmer does not explicitly

disclose that transmission of the second signal s2 may start with the I or P packet of

complete data closest to (either before or after) the instant To indicated by the splicing

command Cc(To). However, Kelly discloses that when switching to another stream, the

playback system implements the closest approximation, given the constraints of the

picture coding types and possible other factors (Kelly: column 9, lines 19-23). Kelly

further illustrates an instance of switching in which file A switches at point P2 to file B at

point P3, wherein point P3 comes before point P2 in time (Kelly: Fig. 5). Since

Teichmer and Kelly relate to splicing media streams, one of ordinary skill in the art at

the time of the invention would have found it obvious to combine Kelly's preconfigured

media stream stored on a disc with the method for splicing media streams of Teichmer

in order to provide a constant picture display (Teichmer: Fig. 2, repeated B frames)

when splicing streams during the execution of a predetermined program sequence

(Kelly: column 1, lines 53-60).

Re **claim 2**, the combined system of Teichmer and Kelly discloses that

transmission of the first signal s1 ends with transmission of the last I, P or B packet of

data received before the start of transmission of the second signal s2 in such a way that

the reproduction of the first signal s1 ends with the reproduction of an I or P packet of

complete data before the start of reproduction of the second signal s2 (Teichmer: Fig. 2,

Freeze Stream (previous GOP extended)).

Re **claim 3**, the combined system of Teichmer and Kelly discloses that

transmission of the I or P complete data packets before the B differential data packets is

configured in such a way that the reproduction of these I or P packets of complete data

is performed after the reproduction of the B packets of differential data (Teichmer: Fig.

2, B frames use bi-directional prediction and the transport order is different from the

presentation order).

Claim 4 has been analyzed and rejected with respect to claim 3 above.

Re **claim 5**, the combined system of Teichmer and Kelly discloses that

transmission of the first signal s1 ends with transmission of the last B packet of

differential data received before the start of transmission of the second signal s2 and

preceding an I or P packet of complete data (Teichmer: Fig. 2, frame B_{84} is extended

through the black period).

Re **claim 6**, the combined system of Teichmer and Kelly discloses that the first

and second signals s1 and s2 comprise several types of complete data packets,

including at least one I packet of introductory complete data and at least one P packet

of predicted complete data, and several B packets of differential data are assembled in

a group of packets GOP comprising only one I packet of complete introductory data with

which the GOP starts, the group of packets enabling the P packets of predicted

complete data and the B packets of differential data to be transmitted in an order

different from that of the reproduction of the P and B packets (Teichmer: Fig. 2).

Re **claim 7**, the combined system of Teichmer and Kelly discloses that

transmission of the second signal s2 starts with the I packet of introductory complete

data closest following the instant To indicated by the splicing command Cc(To) in such

a way that the reproduction of the second signal s2 starts with the reproduction of the I

packet of complete data, but Teichmer does not explicitly disclose that transmission of

the second signal s2 may start with the closest I packet of complete data preceding the

instant To indicated by the splicing command Cc(To). However, Kelly discloses that

when switching to another stream, the playback system implements the closest

approximation, given the constraints of the picture coding types and possible other

factors (Kelly: column 9, lines 19-23). Kelly further illustrates an instance of switching in

which file A switches at point P2 to file B at point P3, wherein point P3 comes before

point P2 in time (Kelly: Fig. 5). Since Teichmer and Kelly relate to splicing media

streams, one of ordinary skill in the art at the time of the invention would have found it

obvious to combine Kelly's preconfigured media stream stored on a disc with the

method for splicing media streams of Teichmer in order to provide a constant picture

display (Teichmer: Fig. 2, repeated B frames) when splicing streams during the

execution of a predetermined program sequence (Kelly: column 1, lines 53-60).

Re **claim 8**, the combined system of Teichmer and Kelly discloses that the first

signal s1 and the second signal s2 are video signals (Teichmer: Abstract section, lines

1-6).

Re **claim 16**, Teichmer does not specifically disclose watermarking of the splicing command Cc(T.sub.0) in the first signal s1, wherein reception of the splicing command comprises reading the splicing command Cc(T.sub.0) watermarked in the first signal s1*. However, Kelly discloses a method for editing digital video recordings, wherein splice point information is embedded in the transport stream (Kelly: column 3, lines 11-20) and the splice point information is processed by a microprocessor (Kelly: Fig. 2; column 7, line 62, through column 8, line 4). Since Teichmer, Takahashi, and Kelly relate to splicing media streams, one of ordinary skill in the art at the time of the invention would have found it obvious to combine Kelly's preconfigured media stream stored on a disc with the method for splicing media streams of the combined system of Teichmer and Takahashi in order to provide a constant picture display (Teichmer: Fig. 2, repeated B frames) when splicing streams during the execution of a predetermined program sequence (Kelly: column 1, lines 53-60).

4.   **Claims 9-15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmer (US 6380991 B1) in view of Kelly et al. (US 6952521 B2) as applied to claims 1-8 and 16 above, and further in view of Fox et al. (US 6181383 B1).**

Re **claim 9**, the combined system of Teichmer and Kelly discloses a majority of the features of claim 9, as discussed above in claim 1, but does not explicitly disclose that the first signal s1 and the second signal s2 further comprise audio frames. However, Fox discloses a method for preserving synchronization of audio and video

presentation when splicing transport streams, where the transport stream includes both

video and audio data (Fox: Fig. 2). Since Teichmer, Kelly, and Fox relate to splicing

media streams, one of ordinary skill in the art at the time of the invention would have

found it obvious to combine the frame splicing of the combined system of Teichmer and

Kelly with the audio/video synchronization of Fox in order to fill the video gap with

repeated frames when the audio component of the first stream extends beyond the end

of the video component when splicing with a second stream (Fox: Fig. 4, gap 440).

Claim 10 has been analyzed and rejected with respect to claim 9 above.

Re **claim 11**, the combined system of Teichmer, Kelly, and Fox discloses that

transmission of the second signal s2 starts with the audio frame configured to be

reproduced with a picture constituted by the I packet of introductory complete data with

which transmission of the second signal s2 is started (Fox: Fig. 2, access unit 224_1).

Re **claim 12**, the combined system of Teichmer, Kelly, and Fox discloses that

transmission of the first signal s1 ends with: the last audio frame starting before the

instant of the start of transmission of the second signal s2 if the time interval between

the start of transmission of the audio frame and the start of transmission of the second

signal s2 is greater than or equal to the duration of an audio frame (Fox: Fig. 3, access

unit 314_4), or, if not, the second last audio frame starting before the instant of the start of

transmission of the second signal s2 (Fox: Fig. 2, access unit 214_3).

Re **claim 13**, the combined system of Teichmer, Kelly, and Fox discloses during

transmission of the first signal s1, transmission of the drift Al of the clock h1 of the first

signal s1 (Fox: column 5, line 64, through column 6, line 3), and during transmission of

the second signal s2, transmission of the drift .DELTA.2 of the clock h2 of the second

signal s2 (Fox: column 6, lines 31-41).

Claim 14 has been analyzed and rejected with respect to claim 13 above.

Re **claim 15**, the combined system of Teichmer, Kelly, and Fox discloses that the

digital signals are MPEG-encoded (Teichmer: Abstract section, lines 1-6), comprising

groups of packets constituted by groups of pictures (GOP), the packets of complete

data constituted by the I and P pictures, the packets of differential data constituted by

the B pictures (Teichmer: Fig. 2), and audio frames (Fox: Fig. 2).

Re **claim 17**, the combined system of Teichmer, Kelly, and Fox discloses a first

input adapted to receive a first signal s1 (Fox: Fig. 1, element 110, multiple inputs), a

second input adapted to receive a second signal s2 (Fox: Fig. 1, element 110, multiple

inputs), an output adapted to transmit a resulting signal formed by the first signal s1

before the splicing indicated by the splicing command Cc(T.sub.0) and the second

signal s2 after the splicing indicated by the splicing command Cc(T.sub.0) (Fox: Fig. 1,

element 140).

Re **claim 18**, the combined system of Teichmer, Kelly, and Fox discloses a

majority of the features of claim 18, as discussed above in claim 17. Teichmer does not

specifically disclose a watermark reader connected to the first input. However, Kelly

discloses that the embedded splicing point information is read and processed by a

microprocessor (Kelly: Fig. 2, uP 114 and input unit 130; column 7, line 62, through

column 8, line 4). Since Teichmer, Kelly, and Fox all relate to splicing media streams,

one of ordinary skill in the art at the time of the invention would have found it obvious to

combine the splicing methods of Teichmer and Fox with the embedded splicing point

information and disc storage of Kelly in order to execute a predetermined program

switching sequence (Kelly: column 1, lines 53-60).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

a.   System method and apparatus for seamlessly splicing data

Yoshinari (US 6567471 B1)

Method and apparatus for splicing

Anderson et al. (US 7027516 B2)

c.   Information processing apparatus

Komori (US 20030123556 A1)

d.   Signal processor

Saunders et al. (US 6529555 B1)

e.   Method and apparatus for editing or mixing compressed pictures

Takahashi (US 5912709 A)

Contact

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is

(571)270-1199. The examiner can normally be reached on Monday-Friday (8:30 AM-

5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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